

**United Utilities Water**

# **Annual Performance Report 2023/24**

## **External Assurance Reports**

**July 2024**

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# 1. Introduction

The purpose of this document is to provide visibility of the external independent assurance undertaken in line with the PR19 final determination requirements. Each performance commitment referred to in this document has been externally audited prior to being signed off by the relevant business unit Director. The sign off process is electronic and is managed through our case management tool, Jira. Each level of reviewer is required to confirm the level and nature of checks undertaken and then subsequently advance the case to the next level or refer to the originator to provide further information. This process is date and time stamped. For the purpose of this document individuals' names have been redacted from the report and replaced with job titles where relevant, showing the level of sign off at each stage of the checks.

In its role as technical auditor, Jacobs undertake detailed audits of our performance commitments and the output of these is recorded on the SAF. The SAF provides a status of actions identified (red, amber, blue, green) against assessments made during the audit and forms an integral part of the supporting evidence for our regulatory reporting process. The criteria used by Jacobs during the audits is described below:

- Red - material concerns over the validity of the reported information
- Amber - potential material concerns over reported information
- Blue - content with reported information but supporting data needs completion / noting/or future improvements required
- Green - no material exceptions and compliant with the requirements

All actions raised in the 2023/24 audits relating to the performance commitments within this document have been satisfactorily addressed.

Performance commitment (bespoke)	Reporting and assurance requirement
<p>Water service resilience See section 2.1 below</p>	<p>The company must publish independent reports of the assessment audit of the baseline position and then further audits of assessment of any changes in the risk position claimed within the year for each year between 2020 and 2025. If changes are necessary to the methodology or underlying data, the reports will assess any potential impact on reported performance and state the impact on the baseline position and any earlier reported years.</p>
<p>Better air quality See section 2.2 below</p>	<p>The company will provide independent assurance including that:</p> <ul style="list-style-type: none"> <li>· The concentration of NOx emissions is measured by independent qualified third party according to BS EN 14792 Stationary source emissions. Determination of mass concentration of nitrogen oxides (NOx) (or its successors or recognised equivalents).</li> <li>· All operational data relating to energy, electricity generation and biomethane production is compliant with the international carbon reporting standard (ISO 14064, Part 1) (or its successors or recognised equivalents) and assured following an audit by an appropriately qualified independent third party.</li> </ul>
<p>Hydraulic internal flood risk resilience See section 2.3 below</p>	<p>The company must publish independent reports of the assessment audit of the baseline position and then further audits of assessment of any changes in the risk position claimed within the year for each year between 2020 and 2025. If changes are necessary to the methodology or underlying data, the reports will assess any potential impact on reported performance and state the impact on the baseline position and any earlier reported years.</p>
<p>Hydraulic external flood risk resilience See section 2.3 below</p>	<p>The company must publish independent reports of the assessment audit of the baseline position and then further audits of assessment of any changes in the risk position claimed within the year for each year between 2020 and 2025. If changes are necessary to the methodology or underlying data, the reports will assess any potential impact on reported performance and state the impact on the baseline position and any earlier reported years.</p>

## 1.1 Water service resilience

Summary of Findings  
RR24 United Utilities

**Jacobs**

Table number	3A.12
Lines	1-2
Status of SAF	Final
Topic Area (as defined by UU Programme)	Water service resilience, water main/water treatment risk
Jacobs Auditor(s)	██████████ (Lead Auditor) ██████████ (Second Auditor)
Jacobs Reviewer	██████████ Principal Consultant – Water Strategy & Regulation
UU Auditee(s)	██████████
Date of Audit	8/04/2024 Follow up meeting: 06/06/2024 to resolve outstanding actions.

### 1. Audit Scope

As for previous years, we have continued to undertake audits remotely, arranging meetings via MS Teams.

This was a Level 2 audit, where opinion is based on a limited audit with reference and guidance taken from previous findings. The audit focussed on the methodology, implementation of the process and assumptions. It involved a review of two schemes contributing to the proposed reduction in customer service days lost (csd/year). This included confirmation of the commissioning and review of the MISER model output used to confirm the volume benefit.

The audit did not include a detailed review of the MISER model nor the risk model which was used to calculate the reduction in csd/year. The risk model was audited at the start of the PR19 reporting period and the team stated that there have been no changes to the model since development. The MISER model is the company operational model and is assumed to include up-to-date operational and asset details.

### 2. Key Findings

Performance is reported in accordance with the Performance Commitment definition. Our data checks have not revealed any issues.

The Watchgate Water Treatment Plant Power Resilience scheme benefit contributes one-third (354 customer service days lost (csl) each year) of the total volume benefit claimed for this reporting year and assumes a 50% risk reduction (from 0.1 to 0.05). The risk reduction assumption is subjective and based on expert judgement. The estimated ODI reward associated with the scheme is £0.625 million. Given there is a significant associated ODI reward, we recommend the team provide a clear justification for the risk reduction assumption in their APR submission commentary to Ofwat.

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Summary of Findings  
RR24 United Utilities



RR24 Table Criteria	RAG	Achieved	Assessment
Performance and Significant events	G	<input checked="" type="checkbox"/>	The PC reported figure of 3,249 reduction in the number of customer water supply service days at risk per year (csd/yr) exceeds the committed performance level of 1,145 and the standard outperformance cap of 3,068. The process is well managed and continues to be maintained by Ed Dalton.
Methodology	G	<input checked="" type="checkbox"/>	The methodology remains the same as previous years. The team confirmed during the 6 <sup>th</sup> June meeting that methodology document has been revised to include current links and other minor updates suggested during the 8 <sup>th</sup> April meeting.
Guidance	G	<input checked="" type="checkbox"/>	The methodology complies with the latest guidance from Ofwat and performance has been reported in accordance with the Performance Commitment definition.
Assumptions	G	<input checked="" type="checkbox"/>	Assumptions were previously audited for the baseline model and found to be reasonable. This year's audit did not cover any material assumptions relating to the overall process and base risk model. For this reporting year, the team has assumed a 50% reduction to the risk of Power Failure and Process Failure associated with the Watchgate Water Treatment Plant Power Resilience improvement scheme. The team explained this assumed risk reduction is subjective and based on operator experience. The team have justified the risk reduction assumption they have used. Additionally, the proportional contribution of the total csd/year claim that the power resilience scheme represents is reported in the table commentary.
Source Data	G	<input checked="" type="checkbox"/>	The source data is clearly identified and includes inputs to the MISER Model (including Peak Week demand and Netbase flow data) and MISER model outputs showing the volume benefit of the scheme. The team stated the peak week demand is based on June 2018 and is unchanged from previous reporting years. The team explained the MISER model is maintained to reflect the latest system changes.
Commentary	G	<input checked="" type="checkbox"/>	The commentary is consistent with the reported number and process.
Clarity of Audit Trails	G	<input checked="" type="checkbox"/>	The audit trail primarily relies on email confirmations of schemes being online. To corroborate the email trail and evidence that the stage had been completed, SCADA evidence was viewed during the audit meeting on 6 <sup>th</sup> June.

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Summary of Findings  
RR24 United Utilities



Confidence Grades	G	<input checked="" type="checkbox"/>	The confidence grade is stated as C2. This is reasonable given the modelling assumptions.
Governance	G	<input checked="" type="checkbox"/>	Evidence of sign off up to executive level was provided

ODI Measure	RAG	On Target	PC reported figure	Assessment
Performance Commitment	G	<input checked="" type="checkbox"/>	Annual benefit = 1051 csd/yr Cumulative AMP benefit = 3249 csd/yr	The performance figure is correctly calculated in accordance with the Ofwat Guidance and methodology. Our sample checks of the calculation spreadsheet identified no issues. The PC reported figure exceeds the committed performance level of 1,145 and the standard outperformance cap of 3,068.

### Summary of Key Observations

The two schemes claimed for this reporting year are:

- WELM150 (inc. Windes boreholes). This scheme increases the transfer capacity of the West East Link Main (WELM) from 95 MI/d to 122 MI/d (a benefit of 27 MI/d), which provides a csd reduction of 697 csd per year.
- Watchgate WTW – Power Resilience. This project increases power resilience and reduces the risk of process failure. It is estimated to provide a csd reduction of 354 per year. This assumes a 50% risk reduction in power failure and a 50% risk reduction in process failure.

The total benefit is 1,051 csd/year, which combines with the previous year's cumulative AMP benefit of 2,198 to achieve a cumulative benefit for RR24 of 3,249. This is above the reward cap of 3,068.

We reviewed the following evidence to support the claims:

- For WELM150, we reviewed flow test data which confirmed a flow of around 122 MI/d could be sustained for 7 hours (refer to screenshot 2). The team explained that due to operational risks, a longer testing period could not be executed.
- We checked the MISER output data which showed the demand deficit with and without the completed scheme at the full 150 MI/d capacity. This showed the corresponding reduction in deficit in the Demand Management Zones that would benefit from the transfer (refer to screenshots 3 and 4).
- We reviewed the project summary for Watchgate WTW Power Resilience and the project milestone dates received through email correspondence confirming project completion by 13 October 2023 (refer to screenshot 5 ,6 and 7)

Summary of Findings  
RR24 United Utilities



- We checked the calculation workbook to ensure the claimed benefits aligned with the values reported in the commentary and the estimated deficit reductions.

### 3. Issues and Material Findings

Data table no.	Line no.	Actions/Recommendations	Company Response	Date of Response	Closed? (Y/N)	RAG
3A	Line 12	We recommend the methodology document (3A.12 Methodology.doc) is updated to include links to the latest spreadsheets (section 2). The previous year's Audit action highlighted in Section 3 of the methodology document should be removed as this has been addressed.	The methodology has been revised to include current links and other minor updates have been completed.  Updated version viewed on screen at the follow up audit meeting	06/06/24	Y	G
3A	Line 12	Given the estimated contribution of the power resilience scheme represents a significant proportion (one-third) of the total csd/year claimed for this reporting year and has a significant associated ODI reward, we recommend the team clearly justify the risk reduction assumption and transparently report on the associated ODI benefit.	The significance of the risk is supported by the <a href="#">DWI Notice</a> that details the actions necessary to achieve power and chlorine dosing resilience to manage the hazards associated with the lack of non-standard shutdowns and start-up to waste facilities at the site. Additionally, the submission commentary reports the proportional contribution of the total csd/year claim that the power resilience scheme represents.	06/06/24	Y	G
3A	Line 12	We recommend the audit trail to confirm project completion is improved.	The team explained that the claimed service benefit is for an interim milestone of the overall project and therefore the 'Project in Use' sign-off is not available at this stage. The SCADA evidence of operational output is	06/06/24	Y	G

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Summary of Findings  
RR24 United Utilities



Data table no.	Line no.	Actions/Recommendations	Company Response	Date of Response	Closed? (Y/N)	RAG
			accepted as evidence of completion for this stage. This was viewed during the audit meeting.			
3A	Line 12	Signoff had not been completed at the time of audit but there is a plan to complete this.	The team emailed evidence of sign-off confirming that the reported value has been approved up to Executive level..	06/06/24	Y	G

## 1.2 Better air quality

### Summary of Findings RR24 United Utilities



Table number	3B
Lines	3B.9
Status of SAF	Final
Topic Area (as defined by UU Programme)	Better Air Quality
Jacobs Auditor(s)	<p>██████████ Associate Director</p> <p>██████████ Associate Director</p>
Jacobs Reviewer	<p>██████████ Associate Director of Water Strategy and Regulation</p>
UU Auditee(s)	██████████ – Lead Analyst
Date of Audit	30/4/2024

### 1. Audit Scope

As in previous years, we have continued to undertake audits remotely, arranging meetings via MS Teams.

For RR24, a level 2 audit was undertaken of Table 3B Line 3B.9. The audit included checks on key control points and QA procedures to ensure the Company's methodology has been followed, milestones are achieved and confirm completeness of reported data.

This was a Level 2 audit, which entailed:

- Checking methodology for consistency through questioning and review of documentation;
- Checking appropriate controls and governance are in place;
- Validation of data sources and calculations, tracing through to reported values (where appropriate);
- Ensuring values/trend are consistent with expectations;
- Ensuring risks to the reported data have been considered and documented where appropriate; and
- that mitigation measures are being considered.

Summary of Findings  
RR24 United Utilities

Key to Audit RAG status	
R	Material concerns over the validity of the reported information
A	Potential material concerns over reported information
B	Content with reported information but supporting data needs completion/noting/or future improvements required
G	No material exceptions and compliant with the requirements
N/A	Not applicable

Summary of Findings  
RR24 United Utilities



## 2. Key Findings

RR24 Table Criteria	RAG	Achieved	Assessment
Performance and Significant events	G		<p>Has the company met their respective targets and is the reporting process well managed/maintained?</p> <p>The team noted the following factors that have contributed to this year's performance.</p> <ul style="list-style-type: none"> <li>• Engine upgrades at Manchester and Liverpool</li> <li>• Exit of a poor performing engine at St Helens</li> <li>• Downtime of an engine at Manchester – long lead time repair</li> </ul>
Methodology	G		<p>Does the methodology remain unchanged from previous years and is it clearly laid out with key data sources, processes, and well-defined control points?</p> <p>We noted that;</p> <ul style="list-style-type: none"> <li>• The methodology is consistent with previous years</li> <li>• The methodology is well documented</li> </ul>
Guidance	G		<p>Does the methodology comply with the latest guidance from Ofwat? And has this been followed to produce the data?</p> <p>We confirmed that the United Utilities' Bespoke Performance Commitment aligns with the agreed OFWAT methodology and guidance – see figure 4.</p>
Assumptions	G		<p>Are all assumptions reasonable and appropriately applied?</p> <ul style="list-style-type: none"> <li>• Well documented</li> <li>• Process of generating biogas leads to product variability, this is captured in UU assumptions</li> <li>• Testing frequency defined</li> </ul>
Source Data	B	<input type="checkbox"/>	<p>We found the source data was complete and beyond material concern</p> <ul style="list-style-type: none"> <li>• Examples of manual data entry seen from emission testing document to source data spreadsheet that could lead to incorrect data recording. A recommendation has been raised to enhance this process.</li> </ul>

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Summary of Findings  
RR24 United Utilities



			<ul style="list-style-type: none"> <li>Peer review evidence shown when manually transferring data as per above (figure 5)</li> <li>Jacob sample Lancaster No 3 engine highlighted in screen shots below (figure 1)</li> </ul>
Commentary	G		<p>Is commentary provided and is it consistent with the process and the reported number(s)?</p> <p>For end of period Pcs is there commentary for this year's actual and next year's predicted performance?</p> <ul style="list-style-type: none"> <li>Supporting commentary document supplied – 'supporting information methodology'</li> </ul>
Clarity of Audit Trails	G		<p>Is the audit trail detailed, comprehensive and traceable back to source?</p> <p>Yes, there is good clarity of information and it can clearly be traced back to source – please see figure 3.</p>
Confidence Grades	G		<p>Do you concur with the confidence grades presented by the company?</p> <p>UU has applied A3 showing confidence in collection method and variability in source data (conditions can vary in between tested periods due biological nature of product)</p>
Governance	G		<p>Has all evidence of appropriate sign-off been provided?</p> <ul style="list-style-type: none"> <li>Performance and Compliance Statement (P&amp;CS) has been completed.</li> </ul>

ODI Measure	RAG	On Target	PC reported figure	Assessment
Performance Commitment  C10	G	<input checked="" type="checkbox"/>	0.87 tonnes of NoX per GWh	Are the performance figures accurately carried forward to the ODI and correctly calculated in accordance with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix?

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Summary of Findings  
RR24 United Utilities



				<ul style="list-style-type: none"> <li>• The figures we found to be calculated correctly and inline with the PR19 methodology</li> <li>• Please see figure 2 and 4</li> </ul>
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- The team being audited were found to be knowledge and competent with the operational and data collation processes in relation to the Performance Commitment.
- Methodology was clear, consistent, and aligned with OFWAT methodology.
- Data trace backs were accurate, and all formulas were correct.
- Risks and Assumptions were well understood and clearly documented.

Summary of Findings  
RR24 United Utilities



### 3. Issues and Material Findings

Data table no.	Line no.	Actions/Recommendations	Company Response	Date of Response	Closed? (Y/N)	RAG
3B	30	Recommend a further review with the supplier to limit the manual transfer of data from emissions reports to source data tables to limit the chance of error. It is acknowledged that for this reporting period, appropriate checks have been put in place to reduce the consequence of inaccurate manual data transfer.				G

## 1.3 Hydraulic internal flood risk resilience

Summary of Findings  
RR24 United Utilities

**Jacobs**

Table number	T3B & T10D
Lines	3B.13-14 – ODI – G05-WWN (Hydraulic flood risk resilience (Internal)) & G06-WWN (Hydraulic flood risk resilience (External)) 10D.2-3 – Green Recovery Benefit – HIFRR & HEFRR
Status of SAF	Final
Topic Area (as defined by UU Programme)	Sewer Flooding and Sewer Network Performance -HIFRR & HEFRR
Jacobs Auditor(s)	██████████ Independent Technical Auditor
Jacobs Reviewer	██████████ Associate Director of Strategy & Regulation
UU Auditee(s)	██████████ Wastewater Network Regulatory Reporting Manager
Date of Audit	26 <sup>th</sup> April 2024

### 1. Audit Scope

As for previous years, we have continued to undertake audits remotely, arranging meetings via MS Teams.

For RR24, a Level 2 audit was completed for the AMP7 common performance commitments G05-WWN and G06-WWN, as contained within Table 3B.13-14 and T10D.2-3, which included checks on key control points and QA procedures to ensure the Company's methodology has been followed and undertake checks to confirm completeness and accuracy of reported data.

The Level 2 audit comprised the following checks:

- checking the methodology against the PC definition and RR24 approach for consistency, through questioning and review of methodologies,
- Checking appropriate controls and checks are in place,
- Challenging provenance of data sources,
- Ensuring performance is consistent with expectations and variations explained,
- Ensuring risks to the PC have been considered and documented where appropriate and mitigations measures considered.

Summary of Findings  
RR24 United Utilities

Key to Audit RAG status	
R	Material concerns over the validity of the reported information
A	Potential material concerns over reported information
B	Content with reported information but supporting data needs completion/noting/or future improvements required
G	No material exceptions and compliant with the requirements
N/A	Not applicable

## 2. Key Findings

RR24 Table Criteria	RAG	Achieved	Assessment
Performance and Significant events	G		Has the company met their respective targets and is the reporting process well managed/maintained? For RR24, UU has achieved the Year 4 target for the 2 x HFFR PCs. Process is very well managed. The continuation of the Flood Review Panel, provides an additional layer of verification for all arisals, with good evidence compiled to support the addition and removal of properties to/from the HFFR.
Methodology	G		Does the methodology remain unchanged from previous year and is it clearly laid out with key data sources, processes and well-defined control points? Methodology is consistent with current process and largely unchanged. Control points identified and understood.
Guidance	G		Does the methodology comply with the latest guidance from Ofwat? And has this been followed to produce the data? Confirmed
Assumptions	G		Are all assumptions reasonable and appropriately applied? Confirmed
Source Data	G		Has the source data been clearly identified, is it complete beyond material concern and is it well managed through to accurate systems input? Confirmed. The Company captures sufficient evidence to enable the appropriate assessment and verification of all arisals and removals.
Commentary	G		Is commentary provided and is it consistent with the process and the reported number(s)? Confirmed – Company standard P&CS updated for RR24
Clarity of Audit Trails	G		Is the audit trail detailed, comprehensive and traceable back to source? Confirmed. A selection of arisals were trailed back to source. Whilst there were no removals delivered during the year, we confirm that a comprehensive evidence folder is prepared to support all additions/removals.
Confidence Grades	G		Do you concur with the confidence grades presented by the company? We confirm an A3 confidence grade, which is consistent with all sewer flooding related data
Governance	G		Has all evidence of appropriate sign-off been provided? Confirmed.

Summary of Findings  
RR24 United Utilities



ODI Measure	RAG	On Target	PC reported figure	Assessment
Performance Commitment	G	<input checked="" type="checkbox"/>	<b>HIFFR Risk</b> - 39.57  <b>HEFFR Risk</b> - 177.47	<p>Are the performance figures accurately carried forward to the ODI and correctly calculated in accordance with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix?</p> <p>Confirmed. Source data is derived directly from INS. ODI calculation is consistent with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix. UU has outperformed the 2023/24 target for the 2 HFFR PCs (£7.69m reward)</p>

- G05-WWN – Hydraulic Internal Flood Risk Resilience and G06-WWN – Hydraulic External Flood Risk Resilience (HFRR)

UU developed a measure for AMP7 to identify customers that have experienced repeat internal/external flooding and then deliver permanent solutions for these customers in order to reduce the risk of them experiencing future flooding.

The Company has developed a complex methodology, based on the identification of all properties on Salesforce INS that have experienced at least 2 non-severe flooding incidents since 2012/13. These properties are then reviewed against the Company's comprehensive suite of 2D 'floodmesh' catchment models (last updated in 2020) to assess the modelled flooding risk. Comparison of the modelled risk and the actual historic flooding risk for each property is completed and the lower of the 2 risks is assigned to the property. When permanent solutions are delivered, the risk of flooding is reassessed, and the total resultant risk is then used to assess performance against the HFRR.

For RR24, UU have identified 1,010 properties on the internal and external HFRR, comprising 756 properties included in the RR19 baseline, 99 arisals in RR20, 61 arisals in RR21, 40 arisals in RR22, 15 arisals in RR23 and 39 arisals in RR24 (comprising 9 internal, 26 external and 4 both). We found that all properties added to the HFRR register (arisals) are reviewed by the Flood Review Panel to ensure the root cause is fully understood and coded correctly.

Up to the end of 2023/24, UU has delivered permanent solutions to reduce the risk of further flooding at 142 of the 1,010 properties on the HFRR registers. However, for RR24, there were no permanent solutions delivered.

We reviewed a selection of arisals during the course of our audit and confirm that properties are repeat flooders.

Although, there were no removals delivered during the year, we confirm that an evidence pack is prepared to support the reduction in risk to all properties affected by a permanent solution.

As a result of the above, where no removals were delivered during the year, the cumulative decrease in overall; internal risk of 30.87 and external risk of 124.50 is unchanged for the year, resulting in a slightly higher level of risk for RR24 of 39.57 (internal) and 177.47 (external). When compared to the PC targets for RR24, this still equates to an outperformance against the internal measure of 17.47 (£7.25m reward) and 10.46 (£0.44m reward) against the external measure. We reviewed the calculation undertaken by UU and confirm a combined outperformance reward of £7.69m.

Summary of Findings  
RR24 United Utilities

**Jacobs**

### 3. Issues and Material Findings

Data table no.	Line no.	Actions/Recommendations	Company Response	Date of Response	Closed? (Y/N)	RAG
		N/A				

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## 1.4 Hydraulic external flood risk resilience

Summary of Findings  
RR24 United Utilities

**Jacobs**

Table number	T3B & T10D
Lines	3B.13-14 – ODI – G05-WWN (Hydraulic flood risk resilience (Internal)) & G06-WWN (Hydraulic flood risk resilience (External)) 10D.2-3 – Green Recovery Benefit – HIFRR & HEFRR
Status of SAF	Final
Topic Area (as defined by UU Programme)	Sewer Flooding and Sewer Network Performance -HIFRR & HEFRR
Jacobs Auditor(s)	██████████ Independent Technical Auditor
Jacobs Reviewer	██████████ Associate Director of Strategy & Regulation
UU Auditee(s)	██████████ Wastewater Network Regulatory Reporting Manager
Date of Audit	26 <sup>th</sup> April 2024

### 1. Audit Scope

As for previous years, we have continued to undertake audits remotely, arranging meetings via MS Teams.

For RR24, a Level 2 audit was completed for the AMP7 common performance commitments G05-WWN and G06-WWN, as contained within Table 3B.13-14 and T10D.2-3, which included checks on key control points and QA procedures to ensure the Company's methodology has been followed and undertake checks to confirm completeness and accuracy of reported data.

The Level 2 audit comprised the following checks:

- checking the methodology against the PC definition and RR24 approach for consistency, through questioning and review of methodologies,
- Checking appropriate controls and checks are in place,
- Challenging provenance of data sources,
- Ensuring performance is consistent with expectations and variations explained,
- Ensuring risks to the PC have been considered and documented where appropriate and mitigations measures considered.

Summary of Findings  
RR24 United Utilities

Key to Audit RAG status	
R	Material concerns over the validity of the reported information
A	Potential material concerns over reported information
B	Content with reported information but supporting data needs completion/noting/or future improvements required
G	No material exceptions and compliant with the requirements
N/A	Not applicable

## 2. Key Findings

RR24 Table Criteria	RAG	Achieved	Assessment
Performance and Significant events	G		Has the company met their respective targets and is the reporting process well managed/maintained? For RR24, UU has achieved the Year 4 target for the 2 x HFFR PCs. Process is very well managed. The continuation of the Flood Review Panel, provides an additional layer of verification for all arisals, with good evidence compiled to support the addition and removal of properties to/from the HFFR.
Methodology	G		Does the methodology remain unchanged from previous year and is it clearly laid out with key data sources, processes and well-defined control points? Methodology is consistent with current process and largely unchanged. Control points identified and understood.
Guidance	G		Does the methodology comply with the latest guidance from Ofwat? And has this been followed to produce the data? Confirmed
Assumptions	G		Are all assumptions reasonable and appropriately applied? Confirmed
Source Data	G		Has the source data been clearly identified, is it complete beyond material concern and is it well managed through to accurate systems input? Confirmed. The Company captures sufficient evidence to enable the appropriate assessment and verification of all arisals and removals.
Commentary	G		Is commentary provided and is it consistent with the process and the reported number(s)? Confirmed – Company standard P&CS updated for RR24
Clarity of Audit Trails	G		Is the audit trail detailed, comprehensive and traceable back to source? Confirmed. A selection of arisals were trailed back to source. Whilst there were no removals delivered during the year, we confirm that a comprehensive evidence folder is prepared to support all additions/removals.
Confidence Grades	G		Do you concur with the confidence grades presented by the company? We confirm an A3 confidence grade, which is consistent with all sewer flooding related data
Governance	G		Has all evidence of appropriate sign-off been provided? Confirmed.

Summary of Findings  
RR24 United Utilities



ODI Measure	RAG	On Target	PC reported figure	Assessment
Performance Commitment	G	<input checked="" type="checkbox"/>	<b>HIFFR Risk</b> - 39.57  <b>HEFFR Risk</b> - 177.47	<p>Are the performance figures accurately carried forward to the ODI and correctly calculated in accordance with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix?</p> <p>Confirmed. Source data is derived directly from INS. ODI calculation is consistent with Ofwat's PR19 FD - United Utilities – Outcomes performance commitment appendix. UU has outperformed the 2023/24 target for the 2 HFFR PCs (£7.69m reward)</p>

- G05-WWN – Hydraulic Internal Flood Risk Resilience and G06-WWN – Hydraulic External Flood Risk Resilience (HFRR)

UU developed a measure for AMP7 to identify customers that have experienced repeat internal/external flooding and then deliver permanent solutions for these customers in order to reduce the risk of them experiencing future flooding.

The Company has developed a complex methodology, based on the identification of all properties on Salesforce INS that have experienced at least 2 non-severe flooding incidents since 2012/13. These properties are then reviewed against the Company's comprehensive suite of 2D 'floodmesh' catchment models (last updated in 2020) to assess the modelled flooding risk. Comparison of the modelled risk and the actual historic flooding risk for each property is completed and the lower of the 2 risks is assigned to the property. When permanent solutions are delivered, the risk of flooding is reassessed, and the total resultant risk is then used to assess performance against the HFRR.

For RR24, UU have identified 1,010 properties on the internal and external HFRR, comprising 756 properties included in the RR19 baseline, 99 arisals in RR20, 61 arisals in RR21, 40 arisals in RR22, 15 arisals in RR23 and 39 arisals in RR24 (comprising 9 internal, 26 external and 4 both). We found that all properties added to the HFRR register (arisals) are reviewed by the Flood Review Panel to ensure the root cause is fully understood and coded correctly.

Up to the end of 2023/24, UU has delivered permanent solutions to reduce the risk of further flooding at 142 of the 1,010 properties on the HFRR registers. However, for RR24, there were no permanent solutions delivered.

We reviewed a selection of arisals during the course of our audit and confirm that properties are repeat flooders.

Although, there were no removals delivered during the year, we confirm that an evidence pack is prepared to support the reduction in risk to all properties affected by a permanent solution.

As a result of the above, where no removals were delivered during the year, the cumulative decrease in overall; internal risk of 30.87 and external risk of 124.50 is unchanged for the year, resulting in a slightly higher level of risk for RR24 of 39.57 (internal) and 177.47 (external). When compared to the PC targets for RR24, this still equates to an outperformance against the internal measure of 17.47 (£7.25m reward) and 10.46 (£0.44m reward) against the external measure. We reviewed the calculation undertaken by UU and confirm a combined outperformance reward of £7.69m.

Summary of Findings  
RR24 United Utilities

**Jacobs**

### 3. Issues and Material Findings

Data table no.	Line no.	Actions/Recommendations	Company Response	Date of Response	Closed? (Y/N)	RAG
		N/A				

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**United Utilities Water Limited**  
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**Water for the North West**